

**NEW ZEALAND INSTITUTES OF TECHNOLOGY AND POLYTECHNIC
QUALIFICATIONS IN INFORMATION & COMMUNICATIONS TECHNOLOGY**

PRESCRIPTION: HS310 HARDWARE

AIM OF MODULE:	To introduce students to the fundamentals of computer hardware and software.
CREDITS:	5
STUDENT LEARNING HOURS:	50
CONTENT REVISED:	2010
PRESCRIPTION EXPIRY DATE:	November 2013

Level and Assessment Schedule

TOPICS	Highest Skill Level				Suggested Assessment Percentage
	R	C	A	P	
1. What is a computer	*				30
2. Hardware/software		*			20
3. Equipment handling			*		25
4. Simple Trouble Shooting				*	25
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LEARNING OUTCOMES

The student will:

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|---|---|--|
| R | 1 | Describe the basic components of a computer and their functions. |
| C | 2 | Describe the basic principles of hardware and software. |
| A | 3 | Demonstrate an ability to correctly handle computer components, and perform routine maintenance. |
| P | 4 | Locate and take corrective action when confronted with simple faults. |

CONTENT

1 WHAT IS A COMPUTER?

- Identify and describe the components of a computer and their functions, including:
 - components of the CPU (control unit, ALU and registers)
 - Fetch/Execute cycle
- Describe the purpose of peripherals such as:
 - CD-ROM
 - Scanner
 - DVD Drive
 - Printer
 - Video Recorder
 - Microphone
 - Plotter
 - Tape Cartridge
- Describe the computer configuration at a given location including hardware such as system unit, peripherals and connections (e.g. network, modems, internet)

2 HARDWARE AND SOFTWARE

- Describe and differentiate between hardware and software
- Explain the three steps in the processing cycle (input, process, output) and the hardware associated with these steps.

3 EQUIPMENT HANDLING

- Demonstrate how to log-on to a workstation (networked or stand-alone)
- Correctly handle and maintain display units, keyboards, mice, printers, systems units, CDs and diskettes

4 SIMPLE TROUBLE SHOOTING

- Locate and take corrective actions when confronted with simple faults, including:
 - Paper out
 - Incorrect contrast
 - Power loss
 - Loose connections
- Prepare a checklist to help isolate a fault to a particular item of hardware or software.

- Find and correct simple faults using the checklist (typically screen, keyboard or mouse not working).